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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/802,851

03/18/2004

Shinsuke Toyomasu

250560US0

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08/06/2007

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ALEXANDRIA, VA 22314

EXAMINER

MESH, GENNADIY

ART UNIT

PAPER NUMBER

1711

NOTIFICATION DATE

DELIVERY MODE

08/06/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/802,851	Applicant(s) TOYOMASU ET AL.	
	Examiner Gennadiy Mesh	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7-12 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) 1, 2 and 7-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3, 4, 10-12 and 15-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/02/2007 has been entered.

Claims 1- 4,7-12 and 15-19 are pending. Claims 1,2 and 7-9 are withdrawn.
Claims 16-19 are newly added.

Note, that Status identifier of Claim 10 (see Listing of Claims filed on 07/02/2007) is incorrect: Claim 10 has not been withdrawn see Office Action mailed on 07/04/2006.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 3-4, 10 – 12 and 15- 19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 7,001,967 in view of information admitted by Applicant(see paragraph [0004] and [0005],page 1) and in further view of Arakawa et al.(US 5,213,852). Optical film, exhibiting negative birefringence claimed by Applicant in Claims 3- 4,10- 12 and 15-19 comprises two components: first – copolymer of specific olefin and N-phenyl-substituted maleimide, exhibiting Tg about 200⁰C and negative birefringence, claimed in U.S. Patent No. 7,001,967 and second component – acrylonitrile-styrene based copolymer, exhibiting Tg about 100⁰C and negative birefringence disclosed in U.S. Patent 5,213,852.

U.S. Patent No. 7,001,967 does not teach use of second component in composition claimed by applicant. However, Applicant admits, that prior art teach that both components are fully miscible and formed thermodynamically stable blend (see paragraph [0005],page 1). Applicant also admits that prior art teach (see paragraph [0004],page 1) that Tg about 140⁰C is preferable for this type of optical films. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention use combination of two components, exhibiting same intrinsic negative birefringence properties, in order to obtain composition for optical film with resulting Tg about 140 ⁰C.

Claim Rejections - 35 USC § 103

3. Claims 3-4, 10 –12 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satoshi et al.(JP 05-117334) and in view of Arakawa et al.(US 5,213,852).

Satoshi discloses identical basic copolymer as Component A claimed by Applicant and teaches that this copolymer can exhibit low positive intrinsic birefringence or negative apparent (at stressed state) birefringence, which was expected by theoretical calculation(see paragraph [0026],page 3 and Example 2). Same art also teaches that blend of two different polymers (see paragraph [0022],page3) will exhibit intermediate resultant birefringence. Satoshi point out that styrene contain polymers will have negative birefringence , but silent about use of acrylonitrile-styrene copolymers for this purpose. However, Arakawa discloses (abstract, lines 20-40,column 3) acrylonitrile-styrene basic copolymer, identical to Applicant's component B and teaches that this copolymer can be blend (see line 5-20,column 9) with other polymers in order to obtain oriented optical film exhibiting negative birefringence, retardation and specific relation between refractive indexes.(see abstract, line 45 –60,column 5).

It is clear that same film of same composition and thickness is capable have same orientation and for this reason will poses substantially same specific relation between refractive indexes .

Therefore , it would have been obvious to one of ordinary skill in the art at the time of the invention blend component A per teaching of Satoshi and component B per teaching of Arakawa, in order to obtain optical film exhibiting negative birefringence,

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specific relation between refractive indexes and retardation properties, and with wide processing window and comparatively high heat resistant.

Regarding limitation of Claim 15: Copolymer disclosed by Satoshi et al.(JP 05-117334) satisfied limitation of “**consisting essentially of**” because copolymer can comprise only two components – same components as claimed by applicant – (due to molar ratio(see claim 1 of Satoshi below) as 100/0 – presence of the component II is not a requirement) :

J-P-A-5-117334 (May 14, 1993)

[Claims]

1. A maleimide-based copolymer comprising at least one of N-phenyl substituted maleimide units represented by the following formula (I),

at least one of N-alkyl maleimide units represented by the following formula (II),

and ct-olefin units represented by the following formula (III),
wherein ((I)+(II)) is 30-98 mol%, (III) is 70-2 mol%,

(I)/(II) molar ratio is **100/0** to 1/99 .

Response to Arguments

4. Applicant's arguments filed on 07/02/2007 have been fully considered but they are not persuasive.

4.1. Regarding Applicant's arguments related to Double Patenting rejection of Claims 3-4, 10-12 and 15-19 over U.S. Patent No. 7,001,967 in view of information admitted by

Applicant(see paragraph [0004] and [0005],page 1) and in further view of Arakawa et al.(US 5,213,852):

i) Arakawa as a Secondary reference does not need disclose both components claimed by Applicant - teaching of Arakawa made obvious for one of ordinary skill in the art to be motivated to use secondary component as acrylonitrile-styrene copolymer in combination with first component as specific olefin and N-phenyl-substituted maleimide this component disclosed by Primary reference - U.S. Patent No. 7,001,967.

ii) Regarding reference to information admitted by applicant in the rejection:
Applicant wrote - see [0005] of the Specification “ ***It is known that with respect to maleimide based copolymers, a copolymer comprising a phenylmaleimide residual group and an ct-olefin residual group exhibits thermodynamic miscibility within a specific proportion range in a blend with a copolymer comprising a styrene residual group and an acrylonitrile residual group (see, for example, U.S. Patent No. 4,605,700)***”.

Thus, one of ordinary skill in the art will be motivated to use phenylmaleimide residual group and an ct-olefin residual group within a specific proportion range in a blend with a copolymer comprising a styrene residual group and an acrylonitrile residual group due to thermodynamic miscibility ***as it done by applicant.***

4.2. Regarding Applicant's arguments related to rejection of Claims 3-4 , 10-12 and 15-19 under 35 U.S.C. 103(a) rejected over Satoshi et al.(JP 05-117334) and in view of Arakawa et al.(US 5,213,852):

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i) Combination of references as Satoshi et al.(JP 05-117334) and in view of Arakawa et al.(US 5,213,852) disclosed film made out of substantially same composition – this film will poses substantially same physical properties, including negative birefringence and ability to undergo same deformation under same conditions, until unexpected results can be shown by Applicant.

ii) Regarding Applicant statement that “ The resulting film have cracks and brittle or have inferior heat resistance” – this argument is irrelevant to claimed subject matter of any claims in the application : In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (cracks, heat resistance) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

4.3. IDS dated March 18,2004 was considered and mailed out on June 13,2007.

Conclusion


THIS ACTION IS NOT MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gennadiy Mesh whose telephone number is (571) 272 2901. The examiner can normally be reached on 8a.m - 4 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GM



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